

**New Hampshire Occupational Health Surveillance Program: Fundamental Program**  
**Grant #1U60OH009853-02**  
**Annual Report of Major Outputs and Outcomes (2012 to 2013)**

NH Division of Public Health Services, Bureau of Public Health Statistics and Informatics  
July 1, 2012 to June 30, 2013

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**The overall objectives of the program are to:**

- Establish the NH Occupational Health Surveillance Program (NH OHSP) within the Division of Public Health Services, Bureau of Public Health Statistics and Informatics
- Collect, analyze, and interpret surveillance data, addressing the utility and limitations of existing databases for collecting and analyzing occupational illnesses and injuries
- Develop new data sources and additional indicators
- Identify priority occupational safety and health conditions in the state
- Disseminate data on the magnitude of occupational injuries and illnesses
- Integrate activities with existing NH public health surveillance systems
- Work with occupational safety and health stakeholders to recommend prevention strategies and interventions

**Major Accomplishments and Outcomes**

***Collect, analyze, and interpret surveillance data, addressing the utility and limitations of existing databases for collecting and analyzing occupational illnesses and injuries***

Performed analysis on a variety of new occupational health indicators, including farm injuries utilizing hospital discharge data, occupational poisonings as reported to the Northern New England Poison Center, asthma prevalence by industry and occupation (Behavioral Risk Factor Surveillance System survey), fatalities associated with tree cutting, characterization of lower adult blood lead levels, work related injuries in the emergency management services data set, data entry and analysis of exposures to infectious diseases by EMS personnel, and a survey of immigrant and refugee working conditions. These studies involved some manual data collection, data base development, implementation of surveys, and creation of case definitions (farm injuries for example). Analysis included evaluation of utility of each data source to provide meaningful statistics on work-related injury and illness in New Hampshire.

Analysis of 16 of the 20 core NIOSH/CSTE occupational health indicators was completed plus analysis on indicators “modified” to utilize existing data, including 7-9 year trends (2000/2002-2009/2010). Hospital discharge data, however, is not available for 2010, so only data through 2009 were reported.

*An outcome of analyzing and producing data on a variety of occupational health indicators is the ability to identify priority areas for prevention strategies.*

***Enhance the OHSP and Develop New Data Sources***

Additional efforts to enhance existing data sources included adding industry and occupation questions to the 2012 and 2013 BRFSS, adding fields for industry and occupation to the poison center data;

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adding occurrence and condition (at work) codes to the hospital discharge data set (2010-2013), and working with partners to create a merged data set of hospital discharge and emergency medical services information to further explore traumatic work-related injuries.

In addition, the NH OHSP is participating in the state-wide development of a web-based interactive system for direction and outcome measures, or WISDOM, which involves creation of both numerator and denominator data from a variety of data sources, including hospital discharge, workers' compensation, Census and Bureau of Labor Statistics. These indicator dash boards allow the user to make a variety of queries within an indicator or topic. WISDOM can be used as a tool for educating stakeholders from academia, nonprofit organizations, advocacy groups, etc. on workplace injuries and illnesses and other employment, demographic and/or exposure/hazard data that warrant targeted attention for prevention purposes. The first display of reports included:

Work related hospitalizations; Work related fatalities; OSHA Enforcement Activities (top cited industries); Workers' compensation awards; and Percentage of workers employed in industries and occupations at high risk for occupational morbidity and mortality

*An outcome of these efforts is the development of more comprehensive data sets and dissemination of more accurate and detailed information, including the investigation of injury and illness data by where a person works, what they do for work, and by a variety of demographic and employment parameters. This is an important aspect of increasing our knowledge and understanding of the true burden of work-related injuries and illnesses, and allows us to better prioritize resources.*

### **Information Dissemination and Communications Activities**

- Developed a formal Communications Plan – Included survey of stakeholder group to determine how they prefer to receive occupational health information and via what format/venue. Piloted use of plan with adult lead surveillance project.
- Added content to web page in DPHS: <http://www.dhhs.state.nh.us/dphs/hsdm/ohs/index.htm>  
Posted all documents via direct RSS feed to NIOSH Clearinghouse.
- Immigrant survey report on working conditions and discrimination at work – resulted in press article in Manchester Union Leader and an interview with the National Safety Council (<http://www.safetyandhealthmagazine.com/articles/8742-educated-and-empowered>). Report informed the NH Health Equity Partnership by creating a baseline of data on the state's immigrant population's experience with difficult working conditions. Survey highlights:
  - 229 immigrants were surveyed about their experience working in New Hampshire.
  - The most common reported job/industry categories were factory, cleaning, food service, farming, service, construction and retail.
  - 62% of all respondents were not aware of workers' compensation.
  - 29 respondents, or about 10% of those who have worked in the U.S., noted they had been injured at work. Common body parts affected included hands, fingers, wrists, backs, knees, feet, elbows, and abdominal regions.

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- *Of the 229 respondents who reported working in the U.S., 69% reported that they always or sometimes maintain tiring or painful positions at work.*
- Hazard Alert on outdoor work and Lyme disease – posted on NH DHHS scrolling “banner” at top of web page (<http://www.dhhs.nh.gov/>).
- Hazard Alert on the hazards of tree cutting – distributed to arborist association, state extension programs, etc. (<http://www.dhhs.state.nh.us/dphs/hsdm/ohs/documents/treework-7-2013.pdf>)
- PI interview by the Northern New England Poison Center during occupational safety week – posted on the NH DHHS scrolling “banner” at the top of the webpage. (<http://www.nnepc.org/national-news/poisonings-at-work-an-interview-with-dr-karla-armenti>)
- Presented work at several national meetings, including the American Public Health Association, Council of State and Territorial Epidemiologists and NIOSH.
- The Occupational Health Surveillance Advisory Committee met twice during Year 3. Topics covered in these meetings included: Dissemination of indicator data to better prioritize prevention efforts, engagement of committee members to develop outreach/communication plan for disseminating pertinent data/information.

*An outcome to information dissemination and education is an increased use of occupational health data by our stakeholders and others who have an interest in the data. More people are looking to us as experts in occupational health surveillance. A more educated stakeholder population is more successful in implementing prevention strategies and effecting policy change.*

**Integrate Activities with Existing NH Public Health Surveillance Systems**

- Occupational Poisoning Project - Northern New England Poison Center
  - UNH Student Field Study to explore 10 years of occupational poisonings in NH
  - Interview by PI posted on Poison Center website <http://www.nnepc.org/national-news/poisonings-at-work-an-interview-with-dr-karla-armenti>
- Occupational mortality study exploring tree cutting incidents in New Hampshire (4 work-related fatalities in 2012) in collaboration with the Dartmouth College Field Study Program. Resulted in Hazard Alert on tree cutting safety.
- Behavioral Risk Factor Surveillance System - Worked with NIOSH on adding industry and occupation questions to 2012 and 2013 survey. Co-Chair of national BRFSS Workgroup
  - In progress: Analysis of 2011 data among 3 states (NH, MA, and WA), analysis of 2012 by NIOSH of all states that included industry and occupation on survey.
- Dartmouth Hitchcock Medical Center (DHMC) Electronic Medical Record Project
  - Participating on NIOSH workgroup around meaningful use and including occupation and industry in the collection of demographic data in the electronic medical record.
  - Working with DHMC on transition to new EMR system.

*As a result of these activities, the NH OHSP has produced more data, contributed to national health care discussions, and explored injury and illness rates within several industries.*

*Outcomes from collaboration include building awareness and educating various public health groups about the importance of occupational health as an integral part of public health (being a voice on various committees devoted to broader public health issues) and securing grants/resources for collecting important data to help us better understand conditions at work for our immigrant and refugee populations.*